



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,932	05/26/2005	Sten Edstrom	G61-029	6877
21706	7590	03/05/2008	EXAMINER	
NOTARO AND MICHALOS 100 DUTCH HILL ROAD SUITE 110 ORANGEBURG, NY 10962-2100			HOOK, JAMES F	
		ART UNIT	PAPER NUMBER	
		3754		
		MAIL DATE	DELIVERY MODE	
		03/05/2008	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/517,932	EDSTROM, STEN
	Examiner	Art Unit
	James F. Hook	3754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 05 December 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-18 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 7 recites the broad recitation of a material thickness of 0.2-3mm, and the claim also recites a material thickness of 0.8-1.4, and further goes on to recite a thickness of 1mm which are both narrower statements of the range/limitation.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Sigel (817). The reference to Sigel discloses the recited method of sealing inaccessible pipes in the ground in which a fluid coating material is sprayed out of at least one nozzle moved through the pipe towards the inner wall of the pipe for covering at least part thereof, the material 16 is brought to harden forming a part of the wall 8,10 to fill a substantial hole 12 where at least one unperforated material piece 4 being divided in the longitudinal direction is held together by means 11 for holding the material piece together to form a pipe piece with a smaller outer diameter than the inner diameter of the pipe which is provided before the coating material to the pipe, the piece is introduced into the pipe to a location for a substantial hole for covering the hole, the means for holding is broken so that the pipe piece increases in diameter while releasing potential energy stored under pretension and will bear against the inner wall of the pipe, and the unperforated material piece forming the pipe piece has no ability to seal the hole alone, but forms in the subsequent spraying of the coating material an auxiliary wall over the hole retaining the material sprayed within the pipe, a video camera is provided to locate the damaged area and is inserted with the pipe piece, where inherently such is used to observe the deployment of the pipe piece, a bellow like

member formed of a rubber hose material forms an expandable bladder/balloon 3 to be pressurized by air to expand inside the pipe piece to hold such and break the holding means when such is moved to the location to be repaired, and where the pipe piece is seen in the figures to have a thickness less than half the thickness of the wall.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 7 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sigel (817). The reference to Sigel discloses all of the recited structure with the exception of the specific thickness of the pipe piece, and the diameter of the hole. It is considered that such are merely choices of mechanical expedients where one skilled in the art would require routine experimentation to arrive at optimum pipe piece thicknesses for any sized holes where, Sigel suggests that such is within the abilities of the skilled artisan by stating sizes can be varied in column 3, lines 10-20. It would have been obvious to one skilled in the art to modify the thickness of the pipe piece and the diameter of the section to be repaired in Sigel by using routine experimentation to arrive at optimum values as such is merely a choice of mechanical expedients and suggested by Sigel even though specific dimensions were not given.

Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sigel (817) in view of Wrightson. The reference to Sigel discloses all of the recited structure with the exception of disclosing a plastic pipe piece that is made of glass reinforced polyester. The reference to Wrightson discloses that it is old and well known in the art to form pipe pieces 11 formed to be placed into a pipe to repair such and expanded to break a holding element 14 to deploy the pipe piece from a smaller diameter to a larger diameter, where such pipe pieces can be formed of plastic materials, specifically polyester reinforced with glass fibers. It would have been obvious to one skilled in the art to modify the plastic pipe piece in Sigel by forming such of polyester reinforced with glass fibers as suggested by Wrightson where such is an equivalent material to form the same type of expandable pipe piece for repair of the inside of a pipe and such would suggest expected results for such material being used for the same application.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sigel (817) in view of Kohichiro (SE 458950). The reference to Sigel discloses all of the recited structure with the exception of placing the material opposite to a branch of a T of the pipe, specifically having a large enough space between longitudinal edges of the sleeve to allow such to be placed opposite to a T branch. The reference to Kohichiro discloses that it is old and well known in the art to provide repair sleeves with longitudinal slits that are spaced apart. It is considered merely intended use to place the sleeve across from a T branch of a pipe, and it would have been obvious to one

skilled in the art to place the sleeve anywhere, including opposite to the T branch of a pipe by modifying the sleeve in Sigel to have a gap between longitudinal edges as suggested by Kohichiro where such would prevent the blockage of the branch pipe when attempting to repair a portion of a pipe that was damaged opposite to the branch opening.

Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sigel (817) in view of Kohichiro (SE 458950) as applied to claim 11 above, and further in view of Wrightson. The reference to Sigel as modified discloses all of the recited structure with the exception of using a polyester glass flake reinforced material for the coating material, and forming the breakable material of a ribbon. The reference to Wrightson teaches the use of polyester and glass for repair, as well as the use of a breakable strap which is a ribbon to hold the pipe piece in the smaller diameter state. It would have been obvious to one skilled in the art to modify the breakable material in Sigel as modified to be formed of any equivalent breakable structure including a ribbon, and to use any suitable material as the coating where it is old and known to use polyesters mixed with glass particles to repair pipe section as suggested by Wrightson where such are known equivalent materials and structures used in the same type of apparatus and would provide alternate equivalent structures as known in the art, where such would insure a proper bond with the pipe wall and ample strength to hold the sleeve in its smaller diameter state to prevent further need of repair and reducing installation times thereby saving costs.

Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sigel (817) in view of Edstrom (SE 504663). The Sigel reference as modified discloses all of the recited structure with the exception of disclosing the specific coating material being used. The reference to Edstrom discloses that it is old and well known in the art to provide a coating material which would include glass flakes in a polyester material or fire proof paint formed with mineral wool. It would have been obvious to one skilled in the art to modify Sigel as modified by using a coating material containing mineral wool, or polyester material with glass flakes as the spray material used to coat insides of pipes as suggested by Edstrom where such is an equivalent spray material used to coat pipes and would provide added protection thereby lengthening the life of the pipe. The specific use of the pipe is considered merely intended use, where the pipe lining method of Sigel could be utilized in any pipe, and the size of the hole is considered to be merely a choice of mechanical expedients where one skilled in the art would only require routine experimentation to arrive at optimum values for the materials used to cover any sized hole.

Response to Arguments

Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

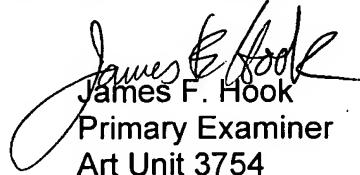
Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references to Janssen (592) and Donnelly disclosing state of the art pipe repair methods.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James F. Hook whose telephone number is (571) 272-4903. The examiner can normally be reached on Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


James F. Hook
Primary Examiner
Art Unit 3754

JFH